MINOR SOURCE OPERATING PERMIT
OFFICE OF AIR QUALITY

Nippisun Indiana Corporation
821 West Mausoleum Road
Shelbyville, Indiana 46176

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 145-15030-00021	
Issued by: Original signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date:January 14, 2002

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary source for the compounding of plastic pellets consisting of thermoplastic and engineering resins.

Authorized Individual:	Yasuyuki Miyoshi
Source Address:	821 West Mausoleum Road, Shelbyville, Indiana 46176
Mailing Address:	821 West Mausoleum Road, Shelbyville, Indiana 46176
Phone Number:	(317) 398-7833
SIC Code:	3087
County Location:	Shelby
County Status:	Attainment for all criteria pollutants
Source Status:	Minor Source, under PSD Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(b) One (1) plastic pellet production line, identified as P2 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(c) One (1) plastic pellet production line, identified as P3 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(d) One (1) plastic pellet production line, identified as P4 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(e) One (1) plastic pellet production line, identified as P5 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting

of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(f) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(g) One (1) plastic pellet production line, identified as P7 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

The PM emission from all seven (7) pellet production lines is controlled by one (1) dust collector and exhausting to vent ES-1.

(h) Various natural gas-fired space heaters with a total heat input capacity of 5.3 million British thermal Units per hour (mmBtu/hr).

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is not required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is not a major source, as defined in 326 IAC 2-7-1(22);

(b) It is not an affected source under Title IV (Acid Deposition Control) of the Clean Air Act, as defined in 326 IAC 2-7-1(3);

(c) It is not a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled “Minor Source Operating Permit”, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

(a) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

(b) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit of volatile organic compounds (VOC) is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

C.5 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)] :

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.6 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM the fact that continuance of this permit is not consistent with purposes of this article.

C.7 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.8 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

Testing Requirements

C.9 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

Compliance Monitoring Requirements

C.10 Monitoring Methods [326 IAC 3]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

Record Keeping and Reporting Requirements

C.11 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.12 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.13 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented when

operation begins.

C.14 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations must be clearly identified in such reports. A reportable deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:

(1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or

(2) A malfunction as described in 326 IAC 1-6-2; or

(3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.

(4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred or failure to monitor or record the required compliance monitoring is a deviation.

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

C.15 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

(a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(b) One (1) plastic pellet production line, identified as P2 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(c) One (1) plastic pellet production line, identified as P3 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(d) One (1) plastic pellet production line, identified as P4 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(e) One (1) plastic pellet production line, identified as P5 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(f) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(g) One (1) plastic pellet production line, identified as P7 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

The PM emission from all seven (7) pellet production lines is controlled by one (1) dust collector and exhausting to vent ES-1.

(h) Various natural gas-fired space heaters with a total heat input capacity of 5.3 million British thermal Units per hour (mmBtu/hr).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2, the PM emissions from the following facilities shall be limited using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

FACILITY ID	PROCESS WEIGHT RATE (pounds/hour)	PROCESS WEIGHT RATE (tons/hour)	PM ALLOWABLE EMISSIONS (pounds/hour)
Line P1	3,000	1.5	5.38
Line P2	1,000	0.5	2.58
Line P3	1,000	0.5	2.58
Line P4	3,000	1.5	5.38
Line P5	1,000	0.5	2.58
Line P6	1,000	0.5	2.58
Line P7	3,000	1.5	5.38

D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

The VOC potential emissions from the plastic pellet production lines P1 through P7 are each less than 25 tons per year. Therefore, the Best Available Control Technology (BACT) requirement in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) does not apply. Any change or modification which may increase each production line VOC potential emissions to 25 tons per year or greater shall obtain OAQ approval before such change may occur.

Compliance Determination Requirements

D.1.3 Testing Requirements [326 IAC 2-1.1-11]

During the period between 90 and 180 days after issuance of this permit, the Permittee shall perform an initial PM and PM-10 testing in order to validate the emission factor used in the emission calculations, verify the level of approval, and to determine compliance with Condition D.1.1, utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensible PM-10. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.4 Particulate Matter (PM)

The dust collector for PM control shall be in operation at all times whenever any pellet production line is in operation.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.5 Record Keeping Requirements

(a) To document compliance with Conditions D.1.2, the Permittee shall maintain records of the amount of total materials used in each process line.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.6 Reporting Requirements

An annual notification certifying that the source is in compliance with the requirements of the MSOP shall be submitted in accordance with C.15 Annual Notification.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**Nippisun Indiana Corporation**
Address:	**821 West Mausoleum Road**
City:	**Shelbyville**
Phone #:	**(317) 392-9204**
MSOP #:	**145-15030-00021**

I hereby certify that **Nippisun Indiana Corporation** is **9** still in operation.
9 no longer in operation.

I hereby certify that **Nippisun Indiana Corporation** is **9** in compliance with the requirements of MSOP 145-15030-00021.
9 not in compliance with the requirements of MSOP 145-15030-00021.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the
Technical Support Document for a Minor Source Operating Permit (MSOP)

Source Name:	Nippisun Indiana Corporation
Source Location:	821 West Mausoleum Road, Shelbyville, Indiana 46176
County:	Shelby
Minor Source Operating Permit:	MSOP145-15030-00021
SIC Code:	3087
Permit Reviewer:	Aida De Guzman

On December 12, 2001, the Office of Air Quality (OAQ) had a notice published in the Shelbyville News, Shelbyville, Indiana, stating that Nippisun Indiana Corporation had applied for a re-permitting of a stationary source for the compounding of plastic pellet consisting of thermoplastic and engineering resins, with baghouses to control the PM emissions. The notice also stated that OAQ proposed to issue the Minor Source Operating Permit and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On December 26, 2001, Nippisun Indiana Corporation submitted comments on the proposed MSOP. The summary of the comments and corresponding responses is as follows (changes are bolded and deletions are struck-through for emphasis):

Comment 1: Several paragraphs A.2(a), A.2(b), A.2(c), A.2(d), A.2(e), A.2(f), A.2(g), D.1(a), D.1(b), D.1(c), D.1(d), D.1.(e), D.1(f), D.1(g) in the draft permit include the following phrase:

"This line includes pneumatic conveying of the plastic pellets (polypropylene);..".

However, in addition to polypropylene pellets, sometimes other plastic pellets made of materials such as nylon, PBT (polybutylene trephthalate), ABS (acrylonitrile-butadiene-styrene terpolymer) and ionomer are also pneumatically conveyed. Therefore, the source recommend deleting the polypropylene reference and substituting the following phrase:

"This line includes pneumatic conveying of the plastic pellets (consisting of thermoplastic and engineering resins);..."

Response 1: Since the requested change will not result in emission increase nor result in new applicable requirements, the permit will be changed as requested:

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to operate the following emissions units and pollution control devices:

(a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(b) One (1) plastic pellet production line, identified as P2 with a capacity of 1,000 pounds per

hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(c) One (1) plastic pellet production line, identified as P3 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(d) One (1) plastic pellet production line, identified as P4 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(e) One (1) plastic pellet production line, identified as P5 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(f) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(g) One (1) plastic pellet production line, identified as P7 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

SECTION D.1

(a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(b) One (1) plastic pellet production line, identified as P2 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(c) One (1) plastic pellet production line, identified as P3 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(d) One (1) plastic pellet production line, identified as P4 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(e) One (1) plastic pellet production line, identified as P5 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(f) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(g) One (1) plastic pellet production line, identified as P7 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets ~~(polypropylene)~~ **(consisting of thermoplastic and engineering resins)**; mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

The PM emission from all seven (7) pellet production lines is controlled by one (1) dust collector and exhausting to vent ES-1.

(h) Various natural gas-fired space heaters with a total heat input capacity of 5.3 million British thermal Units per hour (mmBtu/hr).

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Comment 2: As indicated in Comment no.1, since some of the pellets are made of plastics other than polypropylene, the sources recommends deleting the polypropylene reference and substitute the following phrase:

"The Permittee owns and operates a stationary source for the compounding of plastic pellets consisting of thermoplastic and engineering resins.

Response 2: Paragraph A.1 on Page 4 of 17 of the MSOP will be revised to coincide with the corrected source operation description. Section A.1. will be revised as follows:

A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary ~~plastic compounding for polypropylene pellet~~ **source for the compounding of plastic pellets consisting of thermoplastic and engineering resins** ~~production.~~

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	Nippisun Indiana Corporation
Source Location:	821 West Mausoleum Road, Shelbyville, Indiana 46176
County:	Shelby
SIC Code:	3087
MSOP No.:	145-15030-00021
Permit Reviewer:	Aida De Guzman

The Office of Air Quality (OAQ) has reviewed an application from Nippisun Indiana Corporation relating to the operation of the following existing permitted facilities used in the plastic compounding for polypropylene pellet production:

(a) One (1) plastic pellet production line, identified as P1 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (polypropylene); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(b) One (1) plastic pellet production line, identified as P2 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (polypropylene); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(c) One (1) plastic pellet production line, identified as P3 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (polypropylene); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(d) One (1) plastic pellet production line, identified as P4 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (polypropylene); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(e) One (1) plastic pellet production line, identified as P5 with a capacity of 1,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (polypropylene); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(f) One (1) plastic pellet production line, identified as P6 with a capacity of 1,000 pounds per

hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (polypropylene); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

(g) One (1) plastic pellet production line, identified as P7 with a capacity of 3,000 pounds per hour (lbs/hr). This line includes pneumatic conveying of the plastic pellets (polypropylene); mixing hoppers for the plastic pellets, filler, pigment and additive; extrusion of the mixed material; pelletizing and storage bins for the plastic pellets.

The PM emission from all seven (7) pellet production lines is controlled by one (1) dust collector and exhausting to vent ES-1.

(h) Various natural gas-fired space heaters with a total heat input capacity of 5.3 million British thermal Units per hour (mmBtu/hr).

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) Construction Permit CP 145-4499, issued on September 19, 1995

(b) Registration 145-2201, issued on October 25, 1991;

(c) Exemption 145-7954, issued on March 24, 1997 - Permitted operation has been dismantled; and

(d) Registration 145-4056, issued on November 1, 1994.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
ES1	P1 thru P7 mixing hoppers & additive addition	11.2	1	10,600	ambient
ES2	P1 thru P7 extruders	11.2	1	10,600	ambient + 15^0
ES3	P1 thru P7 water baths (air suckers)	11.2	1	3,500	ambient
EF1-11	natural gas space heaters	28-50	1	11,112	ambient

Enforcement Issue

The source has been operating under expired construction permits and registrations. Nippisun Indiana Corporation failed to apply for an Operation Permit renewal at least ninety (90) days before November 8, 2000, as a condition in CP 145-4499.

IDEM is reviewing this matter and has taken appropriate action. The compliance schedule in this proposed permit will satisfy the requirements of the above stated requirement.

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on November 7, 2001, with additional information received via e-mail on November 14, 2001.

Emission Calculations

(a) Various Natural Gas-Fired Heaters: See Page 1 of 1 TSD Appendix for detailed emission calculations.

(b) Plastic Pellet Production Emissions:
The following emission factors, Ef were based on test data submitted by the source, conducted at a similar facility which were accepted and utilized by OAQ in previous issued permits: VOC Ef = 1.22 lb/ton; PM/PM10 Ef = 0.25% (0.25 lbs/100 lbs) of talc, pigment and additives, or using the source's PM/PM10 collected. The PM/PM10 emission factor given by the source will be utilized in the calculations. However, a stack testing will be required in the permit to validate it. The VOC emission factor of 1.22 lb/ton will be used in the calculations, since it is worse than the emission factor that OAQ customarily use for plastic pellets extrusion.

(1) Line, P1:

VOC Emissions	=	3,000 lb/hr * ton/2000 lb * 1.22 lb/ton * ton/2000 lb * 8760 hrs/yr
	=	8.0 tons/yr
Total Throughput Pigment, talc, additives	=	P1 + P2 + 3
	=	268 lbs/hr
P1	=	60% (268 lb/hr)
	=	160.8 lbs/hr
P2	=	20% (268 lb/hr)
	=	53.6 lbs/hr
P3	=	20% (268 lb/hr)
	=	53.6 lbs/hr

P1 Uncontrolled PM/PM10 Emissions:

	=	160. 8 lb/hr * 0.25 lbs/100 lb * 8760 hrs/yr * ton/2000 lb
	=	1.76 tons/yr

P1 Controlled PM/PM10 Emissions:

	=	1.76 tons/yr * (1-.998)
	=	0.0 ton/yr

(2) Line, P2:

VOC Emissions	=	1,000 lb/hr * ton/2000 lb * 1.22 lb/ton * ton/2000

lb * 8760 hrs/yr
= 2.67 tons/yr

P2 Uncontrolled PM/PM10 Emissions:
= 53.6 lb/hr * 0.25 lb/100 lbs * 8760 hrs/yr * ton/2000 lb
= 0.59 tons/yr

P2 Controlled PM/PM10 Emissions:
= 0.59 tons/yr * (1-.998)
= 0.0 ton/yr

(3) Line, P3:
VOC Emissions = 1,000 lb/hr * ton/2000 lb * 1.22 lb/ton * ton/2000 lb * 8760 hrs/yr
= 2.67 tons/yr

P3 Uncontrolled PM/PM10 Emissions:
= 53.6 lb/hr * 0.25 lb/100 lbs * 8760 hrs/yr * ton/2000 lb
= 0.59 tons/yr

P3 Controlled PM/PM10 Emissions:
= 0.59 tons/yr * (1-.998)
= 0.0 ton/yr

(4) Line, P4:
VOC Emissions = 3,000 lb/hr * ton/2000 lb * 1.22 lb/ton * ton/2000 lb * 8760 hrs/yr
= 8.0 tons/yr

PM/PM10 Emissions: Using the PM/PM10 collected:
P4 dust collected = 6.35 tons/yr

Uncontrolled PM/PM10 Emissions = 6.35 tons/yr * $\frac{8760 \text{ hrs/yr}}{7200 \text{ hrs/yr}}$
= 7.73 tons/yr

Controlled PM/PM10 Emissions = 7.73 tons/yr * (1-.998)
= 0.02 ton/yr

(5) Line, P5:
VOC Emissions = 1,000 lb/hr * ton/2000 lb * 1.22 lb/ton * ton/2000 lb * 8760 hrs/yr
= 2.67 tons/yr

PM/PM10 Emissions: Using the PM/PM10 collected:
P5 dust collected = 2.12 tons/yr

Uncontrolled PM/PM10 Emissions = 2.12 tons/yr * $\frac{8760 \text{ hrs/yr}}{7200 \text{ hrs/yr}}$
= 2.58 tons/yr

Controlled PM/PM10 Emissions = 2.58 tons/yr * (1-.998)
= 0.00 ton/yr

(6) Line, P6:

VOC Emissions = 1,000 lb/hr * ton/2000 lb * 1.22 lb/ton * ton/2000 lb * 8760 hrs/yr
= 2.67 tons/yr

PM/PM10 Emissions: Using the PM/PM10 collected:
P6 dust collected = 2.12 tons/yr

Uncontrolled PM/PM10 Emissions = 2.12 tons/yr * $\frac{8760 \text{ hrs/yr}}{7200 \text{ hrs/yr}}$
= 2.58 tons/yr

Controlled PM/PM10 Emissions = 2.58 tons/yr * (1-.998)
= 0.00 ton/yr

(7) Line, P7:

VOC Emissions = 3,000 lb/hr * ton/2000 lb * 1.22 lb/ton * ton/2000 lb * 8760 hrs/yr
= 8.0 tons/yr

PM/PM10 Emissions: Using the PM/PM10 collected:
P4 dust collected = 6.35 tons/yr

Uncontrolled PM/PM10 Emissions = 6.35 tons/yr * $\frac{8760 \text{ hrs/yr}}{7200 \text{ hrs/yr}}$
= 7.73 tons/yr

Controlled PM/PM10 Emissions = 7.73 tons/yr * (1-.998)
= 0.02 ton/yr

SUMMARY OF EMISSIONS (TONS/YEAR)								
FACILITY ID	POLLUTANT							
	PM/PM10 Uncontrolled	PM/PM10 Controlled	VOC	SO2	CO	NOX	Single HAP	Combined HAPs
Line P1	1.76	0.0	8.0	0.0	0.0	0.0	4.34	4.39
Line P2	0.59	0.0	2.67	0.0	0.0	0.0		
Line P3	0.59	0.0	2.67	0.0	0.0	0.0		
Line P4	7.73	0.02	8.0	0.0	0.0	0.0		
Line P5	2.58	0.0	2.67	0.0	0.0	0.0		
Line P6	2.58	0.0	2.67	0.0	0.0	0.0		
Line P7	7.73	0.02	8.0	0.0	0.0	0.0		
Heaters Natural Gas Combustion	0.0	0.0	0.1	0.0	1.9	2.3	0.0	0.0
TOTAL	23.56	0.04	34.78	0.0	1.9	2.3	4.34	4.39

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential To Emit (tons/year)
PM	23.56
PM-10	23.56
SO_2	0.0
VOC	34.78
CO	1.9
NO_x	2.3

HAP's	Potential To Emit (tons/year)
Hexane	4.34
4,4- Methylenebis (2-chloroaniline)	0.03
Methyl tert butyl ether	0.021
TOTAL	4.39

Justification of Approval Level

The source is an existing permitted source, with volatile organic compounds (VOC) emissions greater than 25 tons per year but less than 100 tons per year. Therefore, the source is re-permitted through a Minor Source Operating Permit (MSOP), pursuant to 26 IAC 2-6.1-7.

Actual Emissions

No previous emission data has been received from the source.

Limited/Controlled Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Plastic Pellets Production Lines P1 thru P7	0.04	0.04	0.0	34.68	0.0	0.0	4.39
Natural gas-fired heaters	0.0	0.0	0.0	0.1	1.9	2.3	0.0
Total Emissions	0.04	0.04	0.0	34.78	1.9	2.3	4.39

The existing re-permitted source is not a major source under 326 IAC 2-2 Prevention of Significant Deterioration and 40 CFR 52.21, since no attainment pollutant is emitted at a rate of 250 tons per year or greater and the source is not one of the listed source categories.

County Attainment Status

The source is located in Shelby County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	not determined

(a) Volatile organic compounds (VOC) and oxides of nitrogen (NOx) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Shelby County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Shelby County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

326 IAC 2-7 (Part 70 Permit Program)
This existing re-permitted source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:
(a) each criteria pollutant is less than 100 tons per year,
(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, (40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

(a) 326 IAC 2-6 (Emission Reporting)
326 IAC 2-6 (Emission Reporting), is not applicable to this source because it is not located in any of the counties listed in the rule that emits more than 10 tons/yr of VOC, nor does it emit 100 tons/yr of any pollutant.

(b) 326 IAC 5-1 (Visible Emissions Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

(a) 326 IAC 8-1-6 (General Reduction Requirements)
This rule applies to new facilities existing as of January 30, 1980, with potential volatile organic compounds (VOC) emissions of 25 tons per year or greater located anywhere in the state, which are not otherwise regulated by other provisions of article 8.
The plastic pellets production lines P1 thru P7 are not subject to 326 IAC 8-1-6, because each line potential VOC emissions are less than 25 tons per year.

(b) There are no other provisions in article 8 that applies to this plastic pellet production source.

(c) 326 IAC 6-3-2 (Process Operations)
This rule mandates a PM emissions limit for the plastic pellets production lines using the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

FACILITY ID	PROCESS WEIGHT RATE (pounds/hour)	PROCESS WEIGHT RATE (tons/hour)	PM ALLOWABLE EMISSIONS (pounds/hour)
Line P1	3,000	1.5	5.38

Line P2	1,000	0.5	2.58
Line P3	1,000	0.5	2.58
Line P4	3,000	1.5	5.38
Line P5	1,000	0.5	2.58
Line P6	1,000	0.5	2.58
Line P7	3,000	1.5	5.38

Each production line is in compliance with 326 IAC 6-3, since their PM emissions are less than what is allowed in the rule.

(d) 326 IAC 6-2 (Particulate Emission Limitation for Indirect Heating Facilities)
The various natural gas-fired space heaters are not subject to 326 IAC 6-2, because they are not sources of indirect heating.

(e) 326 IAC 2-4.1-1 (New Toxics Control)
This rule applies to owner or operator who constructs or reconstructs a major source of HAPs existing after July 27, 1997. The source is not subject to this rule, since it is not a major source of HAPs and its existence predates the applicability date in the rule.

Compliance Monitoring Requirements

Compliance Monitoring and Preventive Maintenance Plan are not necessary since each production line's PM allowable emissions are below ten (10) pounds per hour (threshold for Compliance Monitoring and Preventive Maintenance Plan requirements).

Conclusion

The operation of this plastic compounding for polypropylene pellet production shall be subject to the conditions of the attached **Minor Source Operating Permit (MSOP) 145-15030-00021.**

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler

Company Name: Nippisun Indiana Corporation
Address City IN Zip: 821 West Mausoleum Road, Shelbyville, IN 46176
MSOP NO.: 129-15030
Plt ID: 129-00021
Reviewer: Aida De Guzman
Date Application Received: November 7, 2001

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
5.3	46.4

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.2	0.0	2.3	0.1	1.9

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).